may be used to supply this current. When it is desirable to reduce the amount of energy to the load, while keeping the frequency constant, the turn on time of the top transistor 88 is shortened and the turn on time of the bottom transistor 90 is increased proportionately. Except for some cross over dead time at switching least one transistor is at all times maintaining a low impedance drive to the load. The frequency may also be held constant by reducing the length of both drive pulses with a large amount of off time in between each pulse. This presents a high impedance drive to the resonant network and does not always provide satisfactory operation. A reduction in energy delivered where the on time of the top switch is reduced as shown by drive pulse 115 while the bottom switch on time is extended. Further reduction in power output is depicted with short drive pulse 117 and corresponding long drive pulse 116. Although this method of drive is required for driving electro luminescent flat panels it may also be used to drive gas discharge lighting devices.

Although the present invention has been described in connection with preferred embodiments thereof, many variations and modifications will now become apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited, not by the specific disclosure herein, but only by the appended claims.

What is claimed is:

1. A gas discharge lighting system comprising:

one or more gas discharge lighting devices;

a source of input power;

a electronic ballasting circuit having a regulated direct current requirement coupled between said gas discharge lighting device and said source of input power comprising;

an alternating-to-direct current conversion means;

a power regulator connected to said alternating-to-direct current conversion means for converting its output to said regulated direct current required to operate said ballasting circuit;

a controllable output direct current to alternating current inverter that operates with a nearly square wave output at a frequency above that of audible sound;

an impedance network interposed between said inverter and said gas discharge lighting devices consisting of at least one resonating inductor and capacitor to modify the square wave output of said inverter to provide proper operation of said gas discharge lighting devices; and

a controlling device that controls the operation of said inverter and thus, via said impedance network, the amount of power delivered to said gas discharge lighting device.

2. The gas discharge lighting system if Claim 1 wherein there in a connection from said source of input power to said controlling device to detect and decode signals on said source of input power to adjust the operation of said discharge lighting system.

3. The gas discharge lighting system if Claim 2 wherein said connection between said source of input power and said controlling device allows said controlling device to monitor if a portion of said source of input power AC line cycle is missing and said controlling device adjusts the output to said gas discharge device based upon the amount of missing source if input power AC line cycle.

4. An electro luminescent lighting system comprising:

one or more electro luminescent panels;

a source of input power;

a electronic ballasting circuit having a regulated direct current requirement coupled between said gas discharge lighting device and said source of input power comprising;

an alternating-to-direct current conversion means;

a power regulator connected to said alternating-to-direct current conversion means for converting its output to said regulated direct current required to operate said ballasting circuit;

a controllable output direct current to alternating current inverter that operates with a nearly square wave output at a frequency above that of audible sound;

an impedance network interposed between said inverter and said electro luminescent panels consisting of at least one resonating inductor to modify the square wave output of said inverter to provide proper operation of said electro luminescent panels; and

a controlling device that controls the operation of said inverter and thus, via said impedance network, the amount of power delivered to said electro luminescent panels.

5. The electro luminescent lighting system of claim 2 wherein said controllable output direct current to alternating current inverter is comprised of two switches connected is series across the out of said power regulator. The junction of said switches connected to and inductor the other end of which is connected to one electrode of an electro luminescent panel with the other end of said electro luminescent panel connected to circuit common.

6. The electro luminescent lighting system if Claim 5 wherein there in a connection from said source of input power to said controlling device to detect and decode signals on said source of input power to adjust the operation of said electro luminescent lighting system.

7. The electro luminescent lighting system if Claim 6 wherein said connection between said source of input power and said controlling device allows said controlling device to monitor if a portion of said source of input power AC line cycle is missing and said controlling device

adjusts the output to said electro luminescent lighting device based upon the amount of missing source if input power AC line cycle.

8. An electro luminescent lighting system comprising:

one or more electro luminescent panels;

source of input power;

a electronic ballasting circuit coupled between said gas discharge lighting device and said source of input power comprising;

an alternating-to-direct current conversion means;

a controllable output direct current to alternating current inverter that operates with a nearly square wave output at a frequency above that of audible sound coupled to the output of said alternating-to-direct current conversion means;

an impedance network interposed between said inverter and said electro luminescent panels consisting of at least one resonating inductor to modify the square wave output of said inverter to provide proper operation of said electro luminescent panels;

a controlling device that controls the operation of said inverter and thus, via said impedance network, the amount of power delivered to said electro luminescent panels; and

a manually adjustable input to said controlling device to set the amount of light delivered by said electro luminescent panel.